

# Evaluation of the National Program for Treatment of Chronic HCV in Egypt

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# Cairo University



# The Magnitude of HCV problem in Egypt

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**Prevalence**

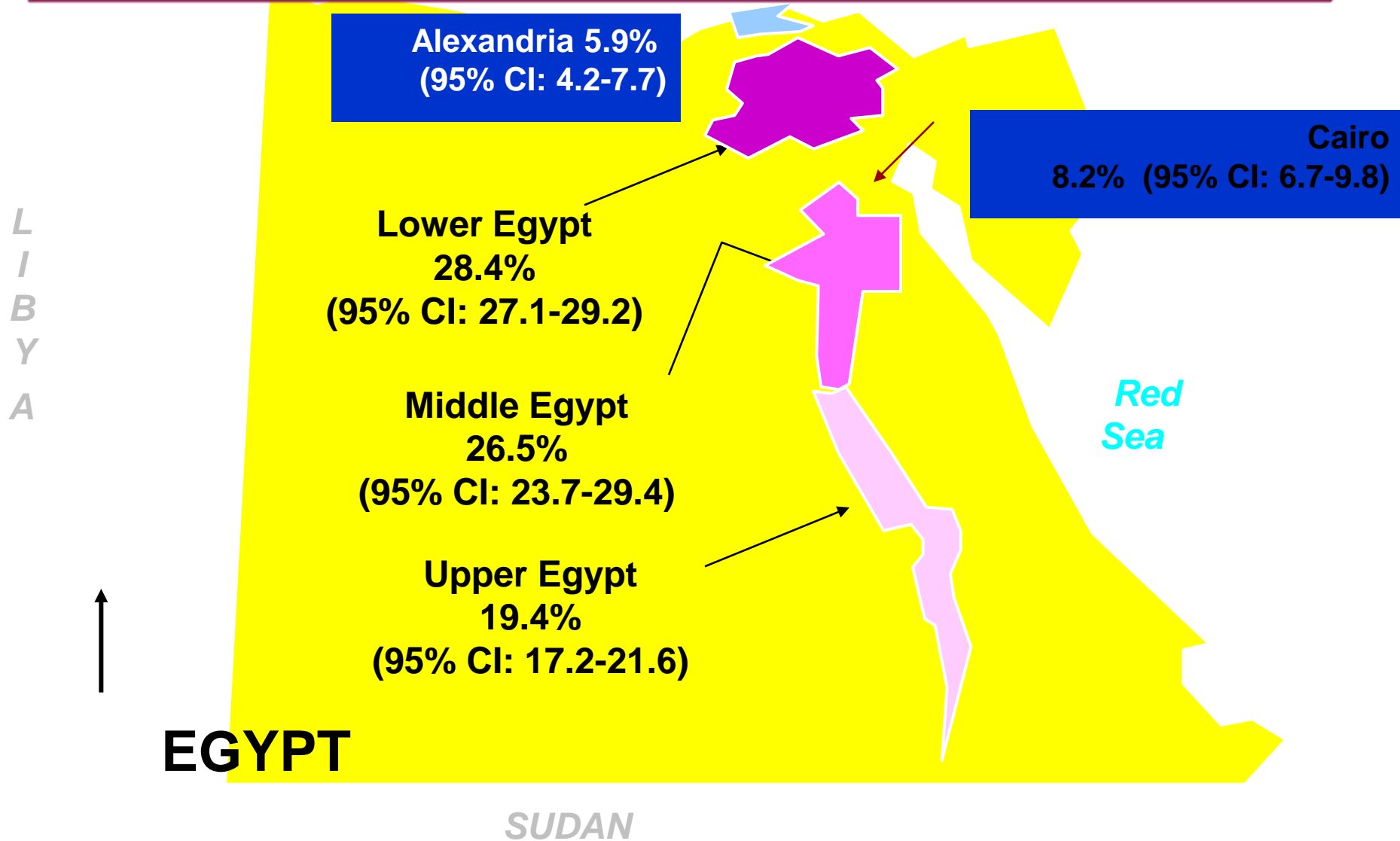
**Incidence**

**Risk Factors**

**Morbidity**

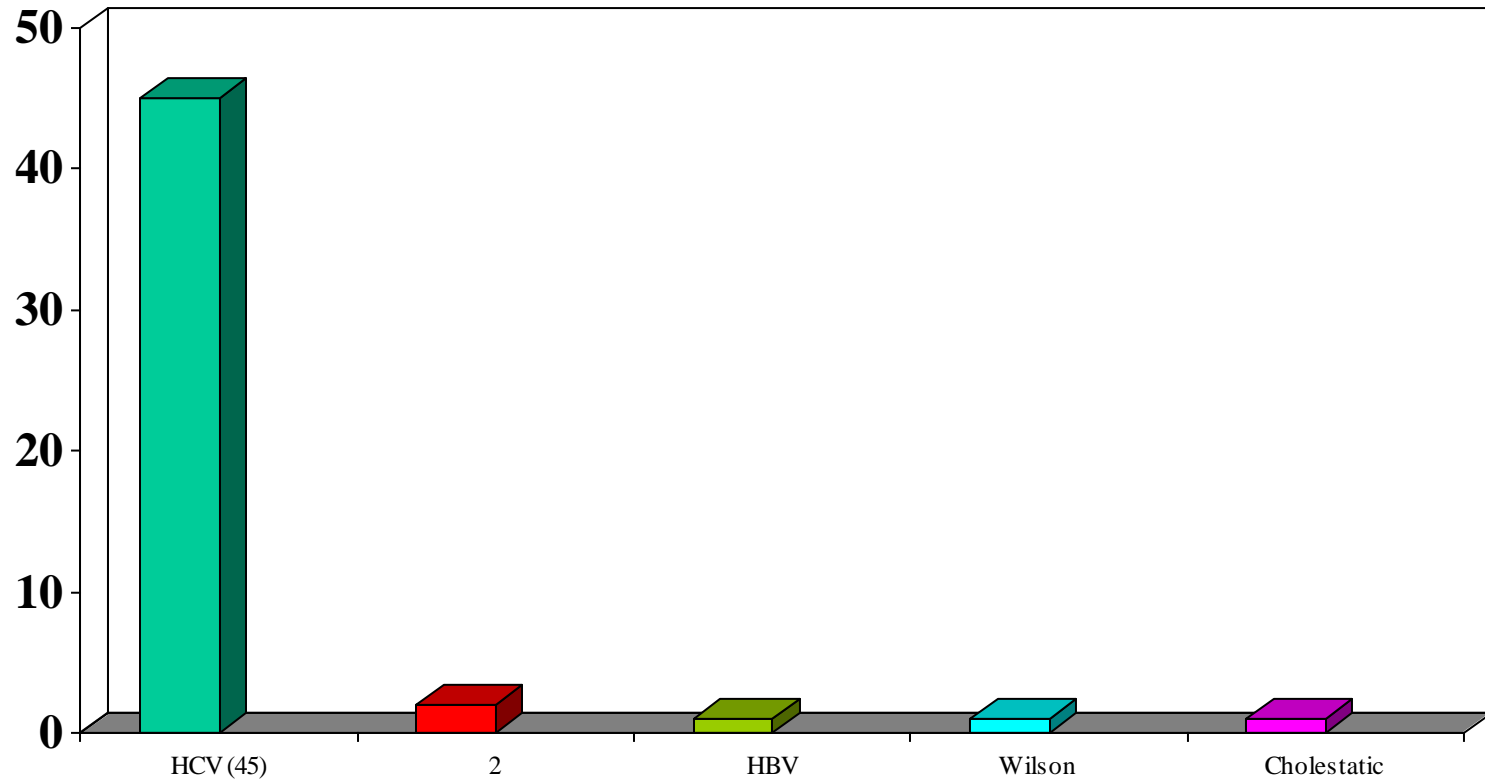
**Mortality**

# Geographic HCV prevalence



- Over an average of 1.6 years, asymptomatic anti-HCV seroconversion occurred in 33 people (3.1/1,000 person-years [PY]), including 28 (6.8/1,000 PY) in the Nile Delta, where prevalence was 24% and 5 (0.8/1,000 PY) in the Upper Egypt (baseline prevalence of 9%).
- The strongest predictor of incident HCV was having an anti-HCV-positive family member. Among those that did, incidence was 5.8/1,000 PY, compared ( $P < .001$ ) with 1.0/1,000 PY.

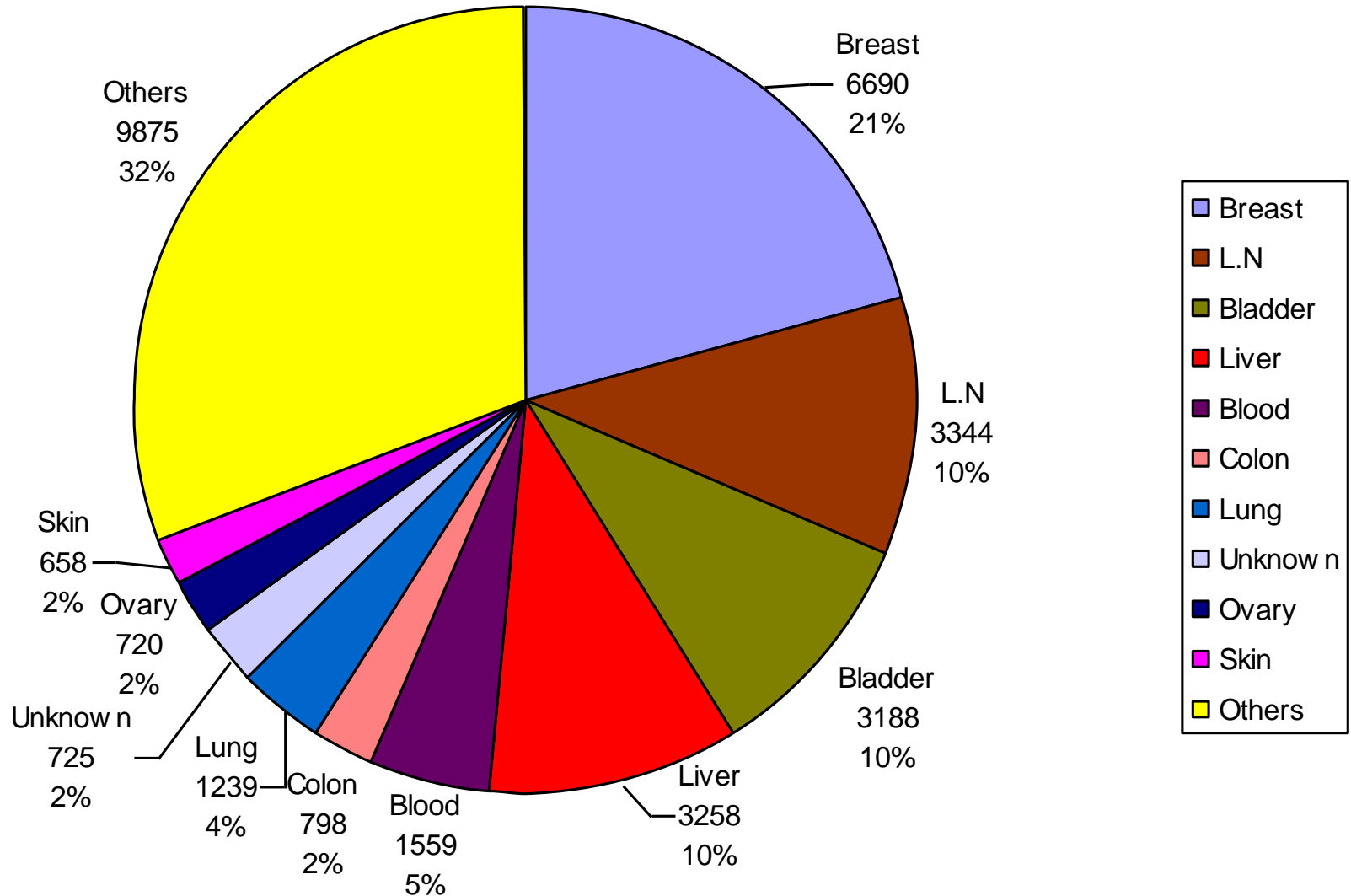
# Indication for Liver transplantation in Egypt



*Esmat et al., (2004)*

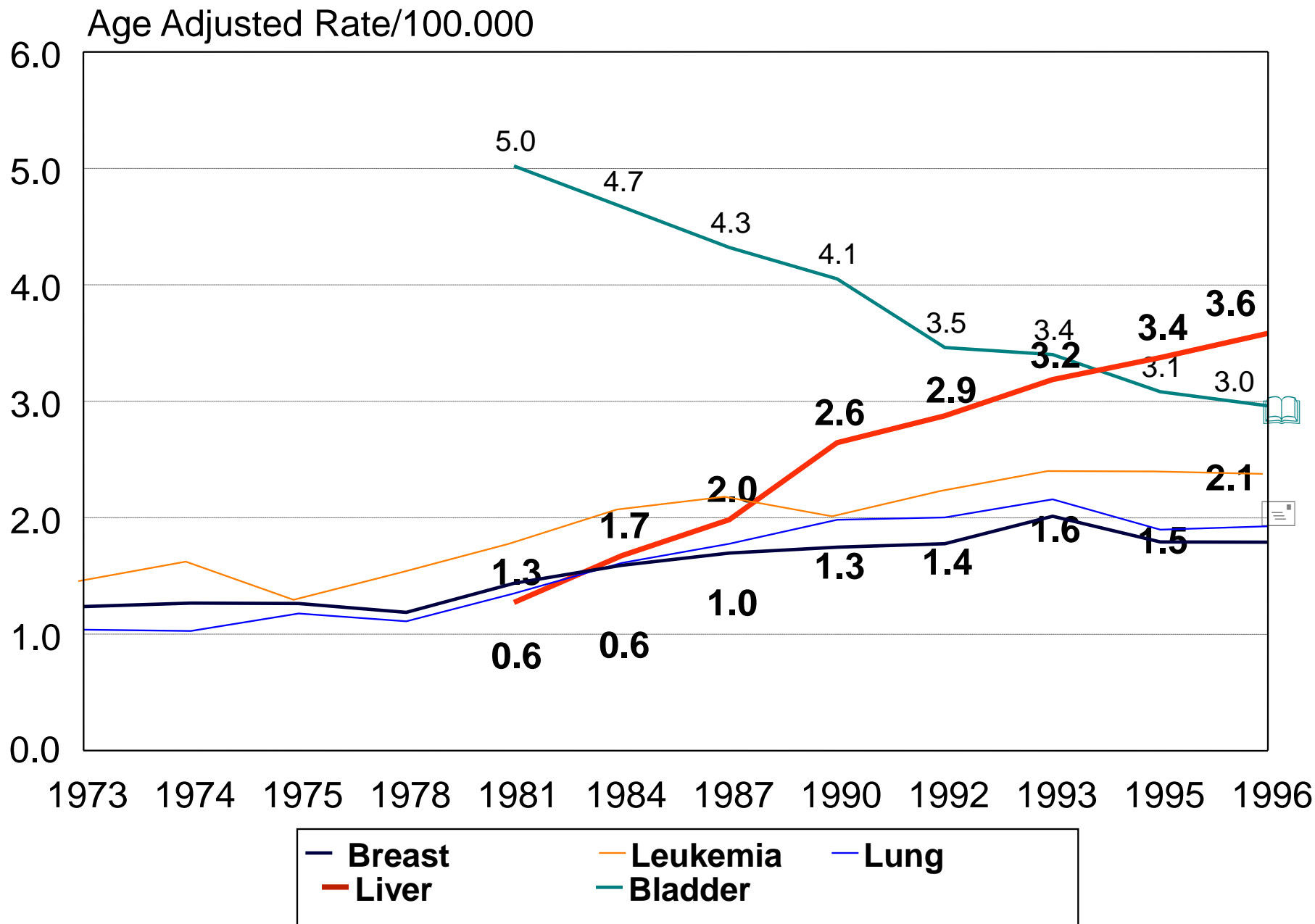
# Leading causes of Cancer in Egyptians 1999-2002(NCIR)

Total of 32054 cases





# Trend of Cancer Mortality in Egypt 1973-1996



Unfortunately, till 2007 we did not have a national control program for control of viral hepatitis

# ***Egyptian National Control Strategy for Viral Hepatitis***



***2008-2012***

*April 2008*

***Arab Republic of Egypt, Ministry of Health and Population  
National Committee for the Control of Viral Hepatitis***

# **The National Control Strategy for Viral Hepatitis**

**the first comprehensive approach to reduce the prevalence, incidence, and burden of disease associated with hepatitis B and C in Egypt.**

**It represents a comprehensive response to the challenge of this major public health issue and is informed by the latest medical and scientific research on viral hepatitis in Egypt.**

- The plan has been elaborated in concert with the
  - Egyptian National Committee on Viral Hepatitis
  - officials from the Ministry of Health and Population,
  - the Ministry of Higher Education,
  - various U.N. agencies and
  - WHO (Geneva and Cairo), as well as
  - researchers at Egyptian universities and
  - other local and international societies involved in the fight against viral hepatitis.

# The main goals of the National Control Strategy

- Detect the prevalence and incidence of HBV and HCV
- Reduce the prevalence of chronic HBV and HCV infection in the 15-30 age group by 20% of 2008 levels by 2012
- Expand access to treatment to within 100 km for all Egyptians and Treat 50% of persons needing treatment by 2012.
- Continue to produce high-quality scientific research
- Ensure programmatic sustainability

# Objectives

National Survey

Availability of treatment

Awareness and Media Campaign

Infection Control

Research

# Objectives

National Survey

(Demographic Health Survey ,DHS 2008)

[www.measuredhs.com](http://www.measuredhs.com)

Availability of treatment

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Infection Control

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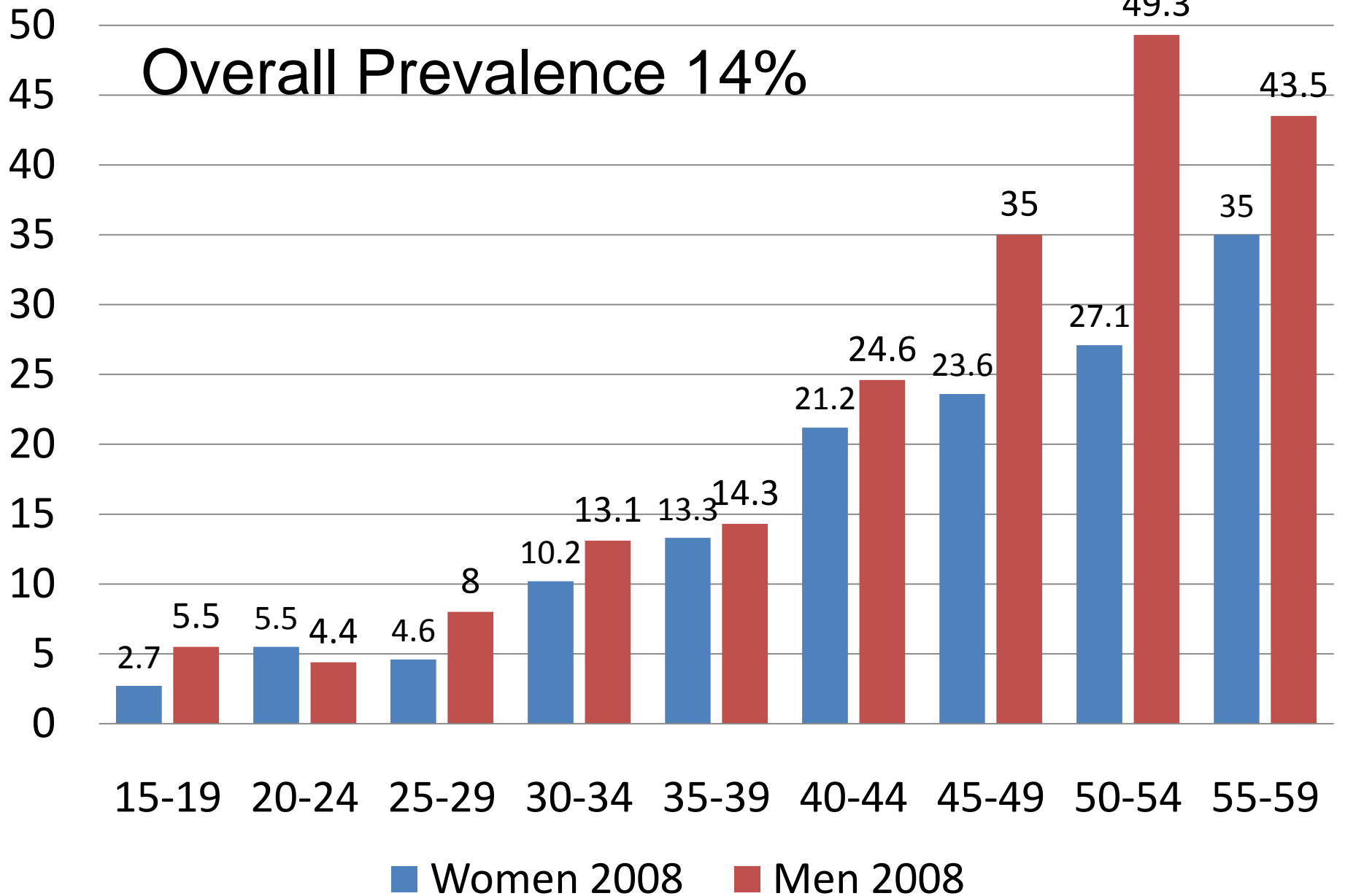


# Self-reported prevalence of HCV infection

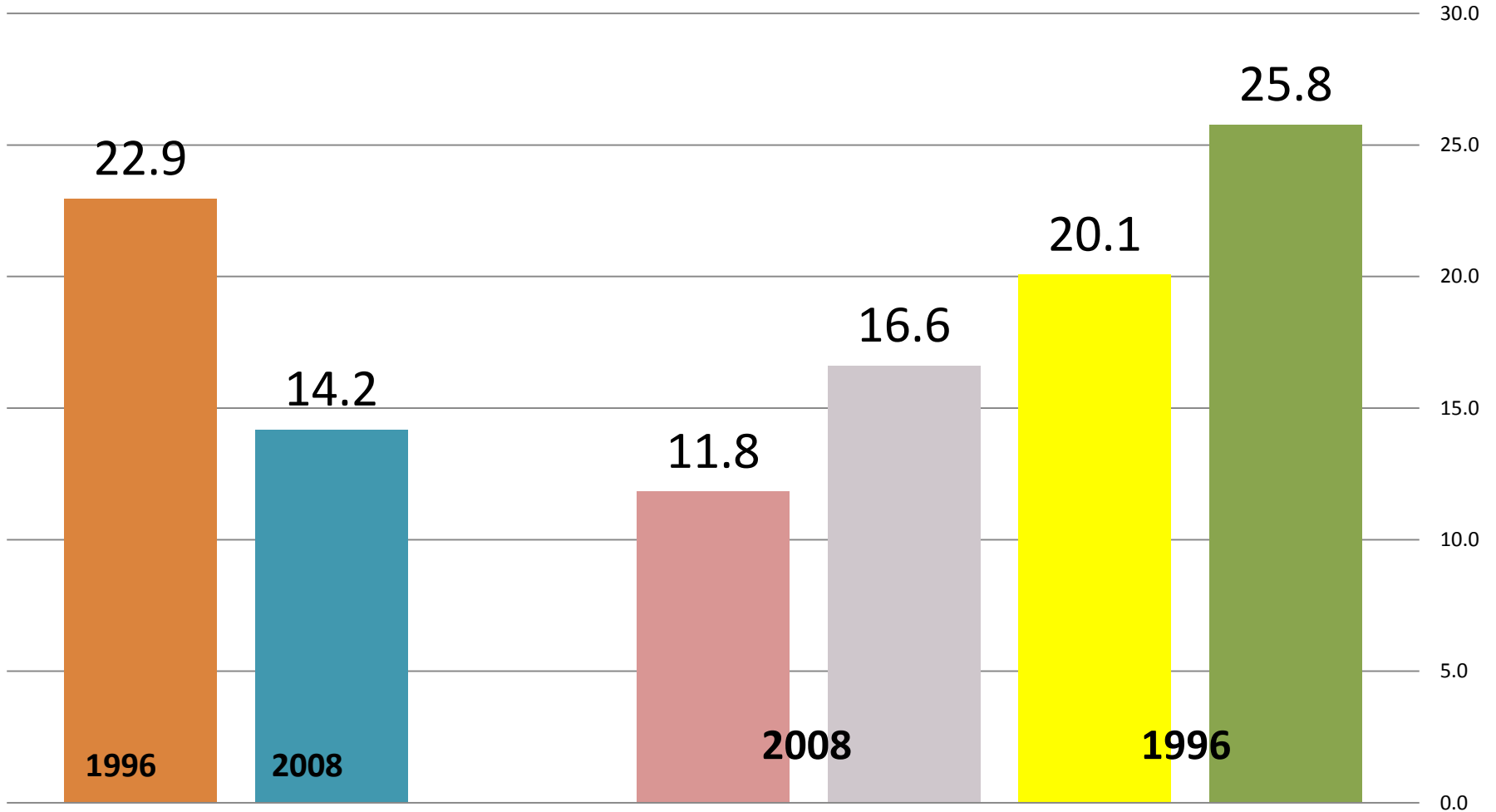
	Women	Men	Total
<b>Ever tested for hepatitis C virus</b>			
Yes	2.0	5.9	3.8
No	77.9	79.6	78.7
Never heard about hepatitis C	20.1	14.6	17.5
Missing	0.0	0.0	0.0
<b>Ever had positive hepatitis C test according to doctor or health professional</b>			
Tested, yes	0.8	2.0	1.4
Tested, no	1.2	3.9	2.5
Not tested	77.9	79.6	78.7
Never heard about hepatitis C	20.1	14.6	17.5
Missing	0.0	0.0	0.0
<b>Treated for hepatitis C after test</b>			
Positive test and treated	0.4	1.0	0.7
Negative test/not tested	79.1	83.5	81.2
Never heard about hepatitis C	20.1	14.6	17.5
Missing	0.4	0.9	0.7

# HCV Egypt 2008

Overall Prevalence 14%



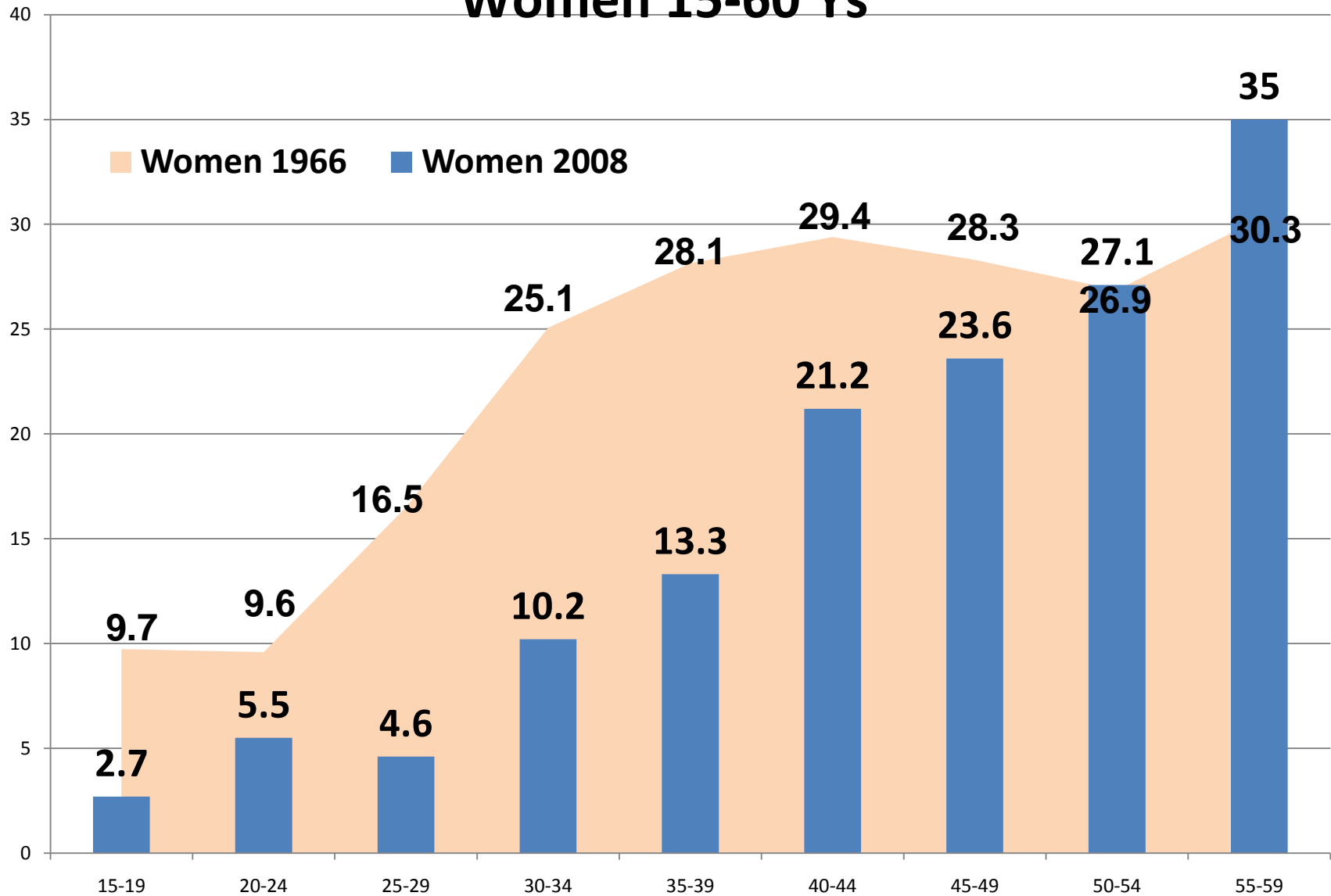
# HCV Prevalence National Surveys 1996 vs 2008 15-60 Ys



■ Men1996 ■ Women1996 ■ Men 2008 ■ Women 2008 ■ All 2008 ■ All 1996

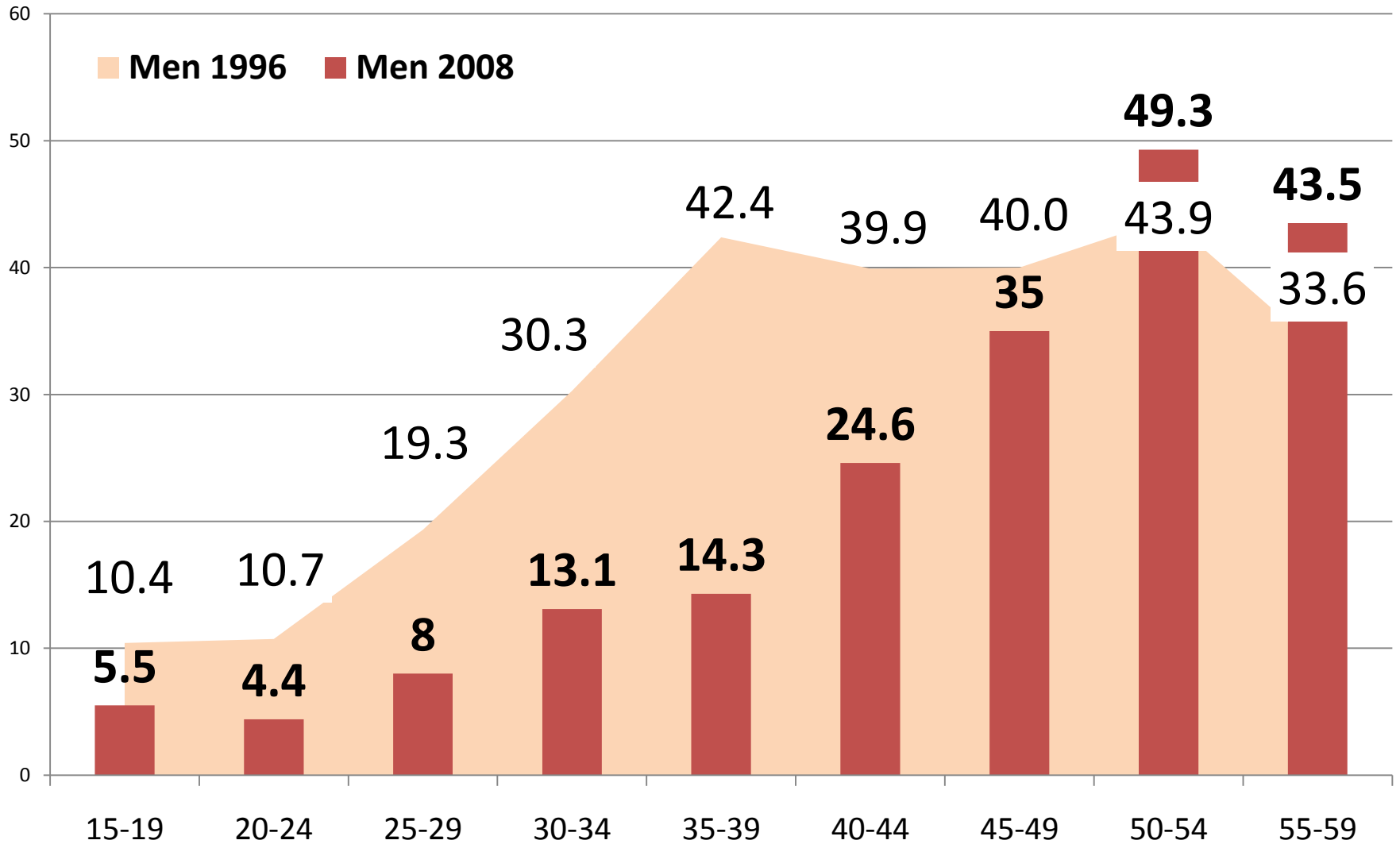
# HCV Prevalence National Surveys 1966 vs 2008

## Women 15-60 Ys



# HCV Prevalence National Surveys 1996 vs 2008

## Men 15-60 Ys



# Total Number of HCV Positive Cases in 1996-2008

	Female cases	Male cases	1996All cases	Female cases	Male cases	2008All cases	Chronic HCV 1996	Chronic HCV 2008
15-19	343277	379167	722443	111401	248022	359423	469588	269568
20-24	307380	361766	669146	165686	145006	310692	434945	233019
25-29	453044	585024	1038067	130382	209033	339416	674744	254562
30-34	609555	785683	1395238	256019	326960	582980	906904	437235
35-39	605653	899449	1505101	319858	340967	660825	978316	495619
40-44	552251	732549	1284800	415505	493044	908550	835120	681412
45-49	456226	631200	1087426	376939	608519	985458	706827	739093
50-54	356239	558439	914678	344490	614785	959275	594541	719457
55-59	308571	319133	627704	304771	427713	732483	408008	549363
Total	3992196	5252409	9244604	2425052	3414050	5839102	6008993	4379326

# Objectives

National Survey

Availability of treatment

Awareness and Media Campaign

Infection Control

Research

# Patient management

- **Scaled-up case detection efforts via Voluntary Counseling and Testing**
- **Improved access to treatment, including the opening of Viral Hepatitis Treatment Centers(VHTC)**
- **Reductions in the price of drugs (20% of its global price), and expanded subsidization of antiviral therapy**
- **Attaining optimal clinical management of all patients, (including pediatric patients and persons suffering from advanced liver disease)**



Viral Hepatitis  
Treatment Centers  
(VHTC)

# 21 Centers in the first 3 years (2007-2010)

- **Cairo:**

- NHTMRI            -Al Kahera Al Fattemia
- New Cairo        -Ahmed Maher Teaching Hospital

- **Alexandria:**

- Quabbary        -Shark El Madina

- **Eight centers in Delta region:**

- Tanta,, Damietta, Al Mansoura, Zagazig , Shebin El-Kom.& Kafr El-Sheikh,Damanhour and Benha

- **Six centers in Upper Egypt:**

- Assuit, Qena ,Menia & Sohag.,BeniSuef and Aswan.

- **Suez Canal Area** Ismailia



# Positive

- Governmental appreciation of the magnitude of HCV problem in Egypt
- National guidelines for treatment of chronic HCV
- MOHP and universities cooperation.
- Different specialties cooperation
- Working in a team
- Starting treatment for more than 100 000
- >90% governmental funding
- EVR >75%
- Data for >100 000 patients to answer a lot of questions.

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- **NHTMRI** in collaboration with **Cairo University** and **Ain Shams University**,  
are responsible for:

- Training of different specialties.
- Quality control and site visits.
- Data management .

# Positive

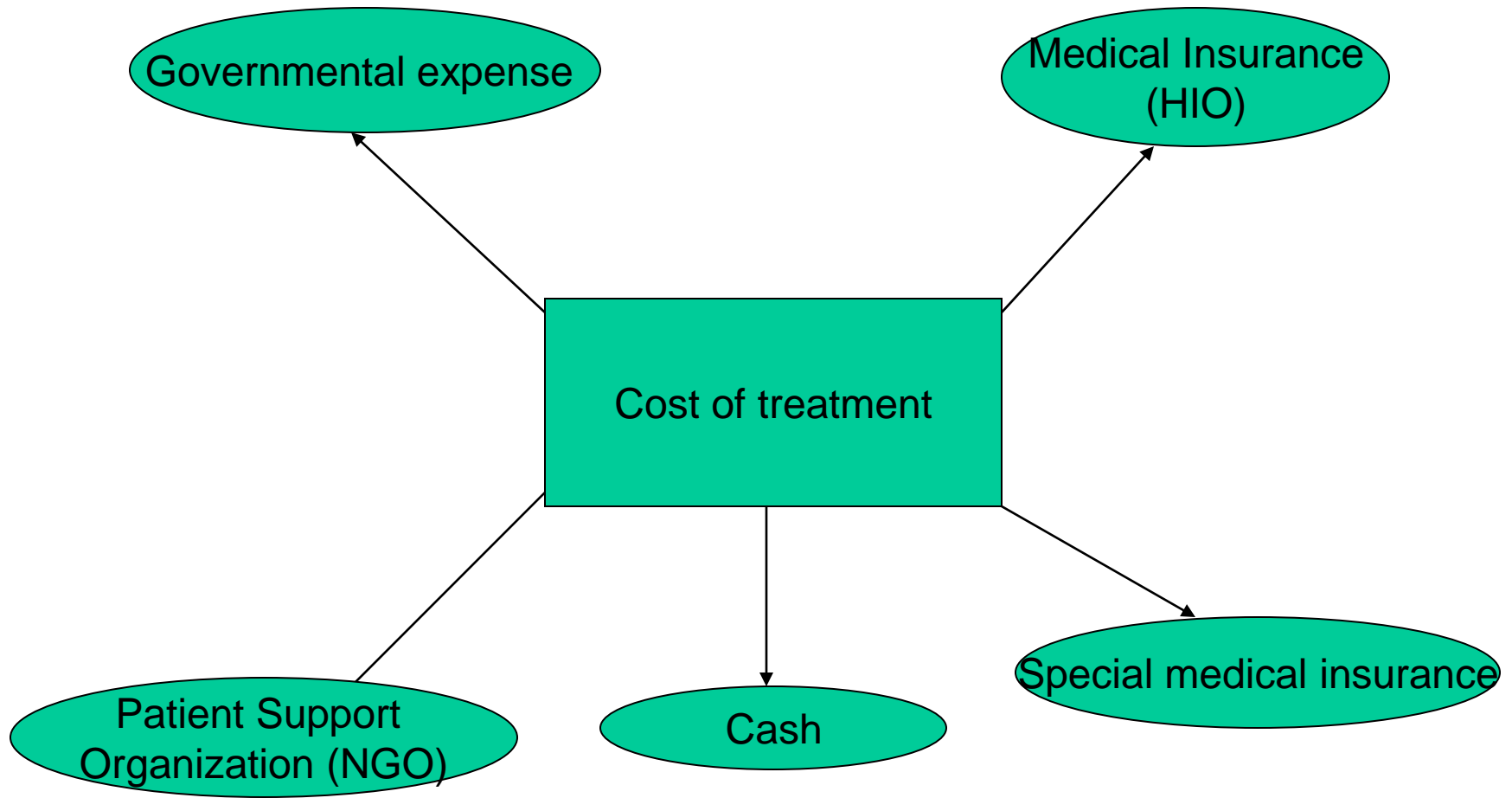
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- In 2007, 10 centers started treatment for about 20 000 patients
- In 2008 , another 40 000 patients started treatment in 16 centers distributed in 13 governorates.
- In 2009 another 4 centers joined the national program.



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- **SVR = 50% (HCV Genotype 4)**
- Data for >100 000 patients to answer a lot of questions.

# Preliminary Results

## (80/80/80)

- EVR 12 weeks 75%
- MVR 24 weeks 65%
- ETR 48 weeks 60%
- SVR 72 weeks 50%

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# QUESTIONS TO BE ANSWERED

- 1) Cost effective analysis
- 2) Non invasive detection of hepatic fibrosis
- 3) Effect of treatment on disease progression
- 4) Role of complementary and alternative medicine
- 5) Treatment of non responders



Thank you  
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